

Belief Is Biased

It's vital to know how our values trump logic.

Jay Ingram

SOME of the most important controversies we face today are those with a scientific underpinning but a public consequence. Anthropogenic climate change, GMOs and nuclear power are among them. The curious feature of these so-called “scientific” controversies is that most members of the public take a stance, pro or con, without regard for the data.

To put it another way, the science really isn't that important. Instead, a set of social and cultural values determine whether citizens will, for instance, accept that we are changing the climate and vow to do something about it, or instead argue that climate fluctuations are natural and we would be foolish to do anything.

With a set of straightforward survey questions, individuals can be categorized on two key social axes. One axis runs from individualism at one end to communitarian at the other; the second from hierarchical to egalitarian. The Cultural Cognition Project, a US-based group of research scholars specializing in psychology, risk assessment and law, have done experiments that show your position on these axes is a good predictor of where you'll cast your lot in these controversies.

For instance, those who tend to be hierarchical (satisfied that the stratification of society is not a bad thing, and it may even be natural) and individualistic (preferring to be responsible only for themselves) do not believe in anthropogenic climate change. You might characterize such people as libertarians. You might also notice that two famous climate change dissidents, Alberta's

Wildrose party leader Danielle Smith and Boston Bruins goalie Tim Thomas, are both self-proclaimed libertarians. Of course, this fact could be correlation, not causation.

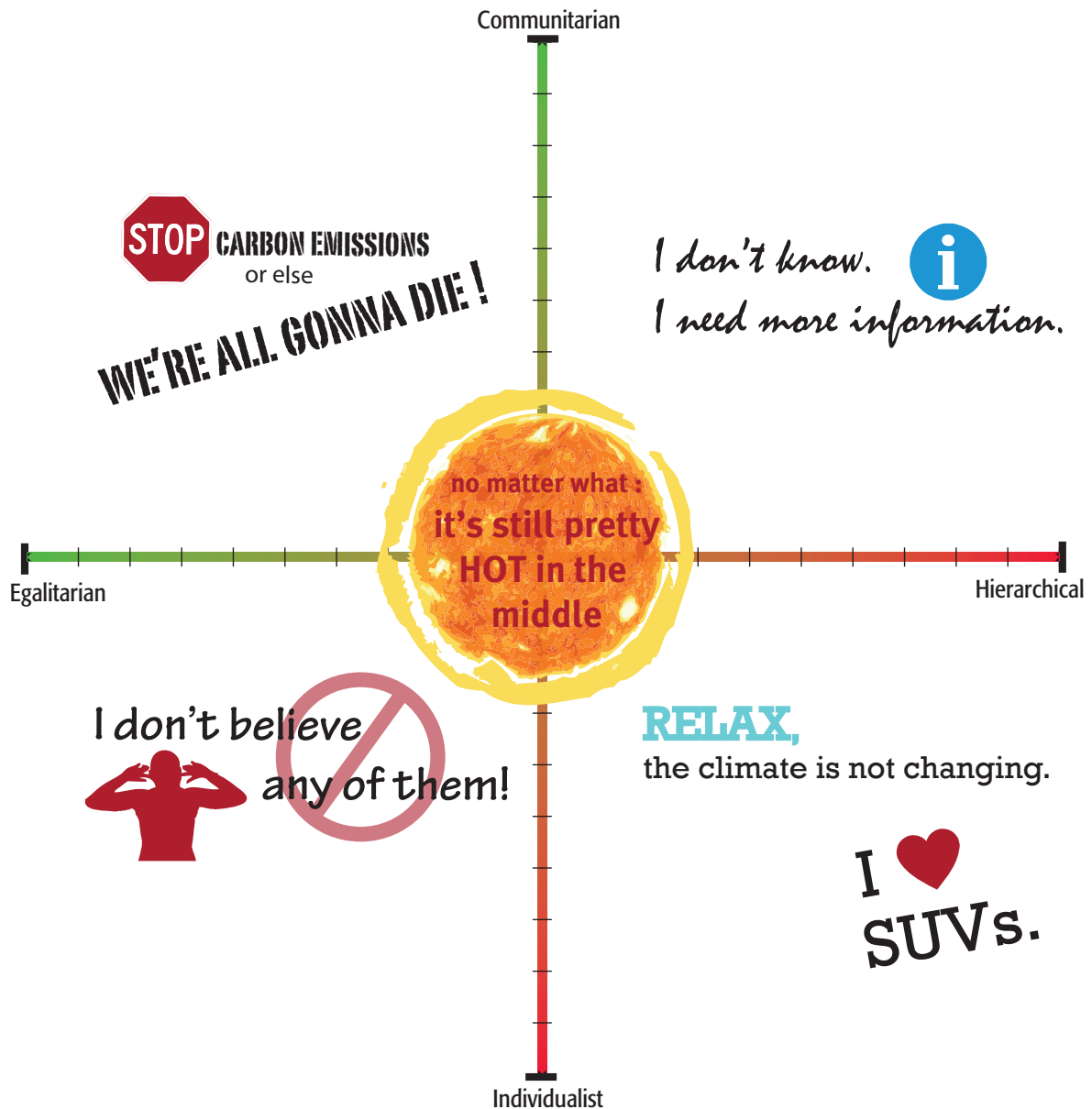
That's why experiments are important. They reinforce that these cultural perspectives all track closely with beliefs in climate change. If you're an individualist, the last thing you want is more government interference in your life – like carbon taxes. On the other hand, egalitarian communitarians – inherently distrustful of industry and big commerce, fearful that the oil companies are stifling debate – believe that we are pushing the climate to a tipping point.

Of course, our attitudes towards government and industry shouldn't interfere with our logical evaluation of scientific data. But that's not how things work. The depth of these social and cultural traits cannot be overestimated. In a sense, they carve society into tribes of like-minded people. Tribe membership ensures that everyone shares the same values, and that they all resist challenges to those values. This happens because we all employ – unconsciously – well-known psychological mechanisms like confirmation bias to persuade ourselves that, for instance, climate change is real and dangerous. Or that it isn't.

This argument applies to *all* personality types. No matter how open-minded, rational and well-considered you think your opinions are, you cannot be immune to these social pressures. And it's not irrational to argue on behalf of your tribe – it makes total sense.

But shouldn't scientific literacy diminish the influence of those tribal attitudes and put you on a firmer, more logical, data-driven footing? Apparently not. One of the most striking studies done by the Cultural Cognition group showed that the more scientifically literate a group was, the *more* polarized their views. Climate change skeptics became even more skeptical the more familiar they were

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with the science. So forget the old argument that if only we had a more scientifically literate populace, we could deal with these issues more rationally.

What can be done about this predicament? It is somewhat reassuring that not every participant in every controversy is locked into position. If you track public opinion about climate change, there is a large group in the mushy middle who move back and forth in their degree of belief or apprehension from year to year. Also, not every scientific controversy gets stuck on such intractable differences.

But still, the previously mentioned controversies are crucially important, and we would all like to see them dealt with in the most reasonable way. However, it's not really clear how we might

do that, which is not surprising given that we're just finding out how controversies work.

That is ironic, because most of the time when I voice these ideas, people claim they are already familiar with them. They nod in agreement as if I'm telling them the sky is blue. But if we're so familiar, why do we always struggle along in the same old way? Maybe Cultural Cognition's studies will convince those who already know this quagmire to take it seriously. Because we must. 🗣️

Jay Ingram, perhaps best known for hosting both Quirks & Quarks and Daily Planet, has been an active science communicator in a wide variety of media for several decades. He is also the author of 12 books, which have been translated into 12 languages.